Parametric Maintenance

PPINIT and FCINIT

Parametric Maintenance

How full are your files?

- It is important to avoid filling up your OFS Data Base.
- Check to see how full your files are before doing much redefining or adding new data.
- You can monitor the percent full of your database with PPINIT @STATUS and FCINIT STATUS.
  - @STATUS also works with FCINIT.
- Look for the % Used columns in the STATUS output.
- FCINIT puts the information at the top of the file.
- PPINIT sprinkles the information throughout the output, but gives a warning if the % Used is more than 95%.

Parametric Maintenance

PPINIT @STATUS example

/fs/awips/rfc/nwsrfs/ofs/output/edwin

```
0- DATA FILE STATUS -
0  MAXIMUM NUMBER OF DAILY DATA FILES =  5     NUMBER OF DAILY DATA FILES USED =  4
0                                      MAXIMUM   LAST USED   PERCENT    UNIT      FILE
    CONTENTS                           RECORDS   RECORD      USED       NUMBER    NAME
    ---------------------------------- --------  ----------  ---------  --------  ---------
  1 INDEX                               10845        7075       N/A        80    PDBINDEX
  2 RRS DATA (PRIMARY)                  61455       28723        47        81    PDBRRS
  3 DAILY DATA                           2169        1647       N/A        82    PDBDLY1
  4 DAILY DATA AND RRS DATA (FREEPOOL)  23859       23586       N/A        83    PDBDLY2
  5 DAILY DATA                           2169        2115       N/A        84    PDBDLY3
  6 DAILY DATA                            723         310       N/A        85    PDBDLY4
1NWSRFS FORECAST SYSTEM - PROGRAM PPINIT   (VERSION: 5.1.71   - 12/20/00)   USER=NCRFC      DATE=Jan 31, 2001 @ 08.58       PAGE=   3
0
0- DAILY DATA TYPE STATUS -
0  MAXIMUM DATA TYPES =  30     DATA TYPES DEFINED = 27
0  TIME ZONE CODE = CST
0   DATA   MAXIMUM   FIRST DAY     LAST DAY      -----ENTRIES-----    --POINTER WORDS--    ---DATA WORDS-----    FILE
    TYPE   DAYS      OF DATA       OF DATA       MAX   USED  %USED    MAX   USED  %USED    MAX   USED  %USED    NAME
    ----   --------  ----------    ----------    ----- ----- -----    ----- ----- -----    ----- ----- -----    ---------
  1 PP24         10   01/03/01/06   01/12/01/06    3500  3235    92    17500 16175    92    3520  3235    92    PDBDLY1
  2 PPVR         10   01/03/01/06   01/12/01/06     660   616    93     2640  2464    93    2688  2488    93    PDBDLY2
  3 TAVR         10   01/03/01/06   01/12/01/06     250   206    82      750   618    82    3616  3500    97    PDBDLY2
0*** WARNING - PERCENT OF DATA WORDS USED ( 97) EXCEEDS  95 PERCENT FOR DATA TYPE TAVR.
+*** WARNING
+*** WARNING
  4 TM24         10   01/03/01/06   01/12/01/06     350   329    94     1750  1645    94     704   658    93    PDBDLY3
  5 MDR6         10   01/03/01/06   01/12/01/06    1470     0   N/A       0     0   N/A    5888     0   N/A    PDBDLY3

  6 TF24         15   12/30/00/06   01/16/01/06     150   106    71      150   106    71     320   212    66    PDBDLY4
  7 EA24         10   01/03/01/06   01/12/01/06      50     7    14       50     7    14     320    42    13    PDBDLY4
  8 PPSR         10   01/03/01/06   01/12/01/06      50     0     0       28    28     0     160     0     0    PDBDLY4
  9 PPST          0   12/31/99/06   12/31/99/06       0     0     0        0     0     0       0     0     0    PDBDLY3
 10 APIG          0   12/31/99/06   12/31/99/06       0     0   N/A        0     0   N/A       0     0   N/A    PDBDLY4

 11 PG24          0   12/31/99/06   12/31/99/06       0     0   N/A        0     0   N/A       0     0   N/A    PDBDLY1
0  MAXIMUM STATIONS = 5000     STATIONS DEFINED = 4468     PERCENT USED =  89
0  MAXIMUM DAYS BETWEEN LAST OBSERVED DATA DAY AND FIRST DAY OF FUTURE DATA =   1
0- DAILY DATA TYPE POINTER RECORD STATUS -
0*** NOTE -    0 DELETED SLOTS FOUND IN PP24 POINTER ARRAY.
p_status.20010131.135809 (61%)
```

Parametric Maintenance

FCINIT STATUS example

/fs/awips/rfc/nwsrfs/ofs/output/edwin

```
1NWSRFS FORECAST SYSTEM - PROGRAM FCINIT   (VERSION: 5.2.30   - 12/20/00)     USER=NCRFC     DATE=Jan 31, 2001 - 09:03:18
0
0>>>>>>>>>>  STATUS                                                          <<<<<<<<<<<<<<<<<<<<
0INPUT CARDS FOR COMMAND STATUS:
 ALL
1NWSRFS FORECAST SYSTEM - FORECAST COMPONENT STATUS REPORT                  USER=NCRFC     DATE=Jan 31, 2001 - 09:03:18   PAGE=   1
01. DIMENSIONS FOR USER NCRFC
0     18 CARRYOVER GROUPS HAVE BEEN DEFINED
0     54 FORECAST GROUPS HAVE BEEN DEFINED (INCLUDING OBSOLETE DEFINITIONS)
0   1433 SEGMENTS HAVE BEEN DEFINED (INCLUDING OBSOLETE DEFINITIONS)
0    861 RATING CURVES HAVE BEEN DEFINED (INCLUDING OBSOLETE DEFINITIONS)
0- DATA FILE STATUS -
0   CONTENTS                              ENTRY TYPE                    MAXIMUM          USED             %USED
    ------------------------------------  ----------------------------  ---------------  ---------------  -----
    CARRYOVER                              10 SLOTS - EACH SLOT HAS:    249600 WORDS     183627 WORDS       74
    PARAMETERS                            100 WORD RECORDS              53922 RECORDS    33051 RECORDS      61
    CARRYOVER GROUP DEFINITION            CARRYOVER GROUPS                 25               18              72
    FORECAST GROUP STATUS                 FORECAST GROUPS                 579               54               9
    FORECAST GROUP SEGMENT LIST           SEGMENT IDENTIFIERS            2655             1553              58
    SEGMENT POINTER AND STATUS            SEGMENTS                       2655             1433              54
    RATING CURVE POINTER AND DEFINITION   RATING CURVES                  1116              861              77
0AVERAGE LENGTH OF THE 1076 P ARRAYS IS  1204 WORDS
0AVERAGE LENGTH OF THE 1076 C ARRAYS IS   110 WORDS

02. DEFAULTS FOR USER NCRFC
0   TECHNIQUE     VALUE
    ----------    --------
    NOUTZ         -6(CST )
    NOUTDS         0
    FUTPRECP      24
    METRIC         0
    PRINTOUT       1
    PRINTSNW       2
    PRINTSMA       1
    PLOTHYD        2
    TABLES         2
    SNOW           1
    UPWE           1
    UPSC           1
f_status.20010131.140317 (0%)
```

Parameteric Maintenance

- The OFS parameters must be updated when:
  - You create new basin boundaries
  - New stations or forecast points come on line
  - Old stations are removed from service
  - The data time step changes
  - One model is replaced by another
  - A basin is broken into smaller modeling units
  - Calibrations result in new model parameters
  - Updating rating curves
  - And so on .....

Parametric Maintenance

PPINIT

- Adding new STATIONS, AREAS,BASINS:
  - @DEFINE [STATION, AREA, BASIN]
    - New stations come on line
    - A basin is broken into smaller modeling units
- Updating STATIONS, AREAS,BASINS:
  - @DEFINE [STATION, AREA, BASIN] OLD
    - New basin boundaries
    - The data time step changes
    - A basin is broken into smaller modeling units

Parametric Maintenance

PPINIT

- Removing obsolete information:
  - @DELETE [STATION, AREAS, BASINS]
    - When you delete a station or an area the PPDB data allocations and the PRD time series associated with that station or area are also deleted.
    - You cannot delete a station or an area that has a time series used in a Segment.
    - You cannot delete a station that is used in a predetermined weighting scheme for another station or for an area.

Parametric Maintenance

FCINIT

- Update a SEGMENT:
  - RESEGDEF
    - A basin is broken into smaller modeling units
    - Calibrations result in new model parameters
    - The data time step changes
- Carryover transfer process when doing RESEGDEF:
  - Depends on the Operation
  - Rules can be found in the documentation for the Operation
  - Carryover is updated to reflect parameter changes

Parametric Maintenance

FCINIT

- Add a new Segment:
  - SEGDEF, FGDEF, CGDEF
    - A basin is broken into smaller modeling units
    - New stations of forecast points come on line
    - You enter your own carryover for new Operations
- Update rating curves:
  - DEFRC
    - Can update either forecast point information or stage-discharge relationship
- Add Special Forecast Groups:
  - SPECIALFG
    - Especially useful for ESP

Parameteric Maintenance

FCINIT

- Deleting segments
  - DELETE [SEGMENT, CGROUP, FGROUP]
    - Must delete Carryover and Forecast Group first
    - Output time series from a Segment will also be deleted from PRD